

SEPTEMBER 15, 2004
AIR QUALITY BULLETIN – TO ALL CITY AND COUNTY OFFICIALS
ACTION NEEDED
CARB'S REFUSE RULE:
SEIZE THE OPPORTUNITY TO REDUCE NO_x AND PM EMISSIONS

Issue

- CARB's Refuse Truck Rule¹ became effective as of July 20, 2004. It impacts over 12,000 refuse trucks that operate daily throughout California, primarily on residential streets.
- *If refuse haulers only meet the minimum compliance requirements, there will be no NO_x reductions from retrofitting existing in-service vehicles as a result of this Rule.*
- *This would be a huge opportunity missed to reduce the NO_x-related health impacts on all Californians.*
- *However, if both PM and NO_x reductions were required, over 3.18 tons per day of NO_x reductions, equal to nearly 10% of NO_x from refuse trucks, could be achieved statewide.*
- *Moreover, this reduction can be achieved at a very modest, one-time cost.*

Background

- The health impacts of particulate pollution and ozone (which includes NO_x) are serious. Children, the elderly and those with respiratory problems are especially susceptible to the dangers of air pollution. These impacts are especially acute in low-income and minority neighborhoods and near freeways and major arterials.
- On average, each refuse truck emits 1.11 tons of nitrogen oxides (NO_x) and .07 tons of particulate matter (PM) each year. Statewide, refuse trucks emit 13,320 tons of NO_x and 840 tons of PM each year. That means refuse trucks emit over 39.49 tons per day of NO_x and 2.3 tons per day of PM.
- We need to reduce PM and NO_x emissions throughout the State in order to attain the Federal health-based air quality standards.
- The Refuse Rule requires PM reductions, but does not require NO_x reductions, even though CARB-verified technologies exist to achieve cost effective NO_x and PM reductions.
- If the Rule were also to require NO_x reductions, over three tons per day, or 1,160 tons per year, in NO_x reductions could be achieved:

Region	Possible NO _x Reductions	
	Tons per Day	Tons Per year
Bay Area Air Quality Management District	0.61	223.0
South Coast Air Quality Management District	1.53	558.5
San Diego Air Pollution Control District	0.27	98.6
San Joaquin Air Pollution Control District	0.27	98.6
Monterey	0.06	21.9
Sacramento Metropolitan Air Quality Management District	0.18	65.7
Other areas in California	0.26	94.9
Total Possible Daily NO_x Reductions	3.18 Tons Per Day	1,161.2 Tons per Year

¹ Article 4, Diesel Particulate Matter Control Measures, Chapter 1, Division 3, Title 13, California code of Regulations, Sections 2020, 2021, 2021.1, 2021.2.

Costs of Compliance are Minimal and One-Time Only

- CARB recognizes in the rule and has notified cities and counties², that the cost of compliance should be passed on to ratepayers and negotiated into refuse hauling contracts. Over 87% of the existing refuse contracts allow for renegotiation in the case of a new State law such as this.
- Where cities and counties directly provide waste hauling, they need to comply with the Rule. It is expected that they will also pass the cost of compliance on to residential and commercial customers.
- The costs³ of rule compliance are shown below. This table assumes the entire cost is spread out over a one-year period. Assuming the monthly refuse service cost is currently \$18.90 per household, the one-time cost increase would be 1.5% for PM only and 2.8% for PM and NOx reductions.

Cost	Monthly <u>One Time</u> Cost per Household	Total <u>One Time</u> Cost per Household
PM only control	\$.28	\$3.36
PM and NOx control	\$.53	\$6.36
Incremental difference PM only vs. PM and NOx	\$.25	\$3.00

Why Does This Matter to Cities, Counties & Metropolitan Planning Organizations (MPOs)?

- U.S. EPA requires that federal transportation investments support clean air goals.
- MPOs must demonstrate that transportation sources including trucks, cars, and buses are achieving emissions reductions from PM, NOx and VOCs. This is called transportation conformity. Refuse trucks need to reduce NOx to help in this process.
- **Failure to meet U.S. EPA transportation conformity requirements results in the withholding of federal transportation funds for all but limited types of projects. An interruption in the flow of federal transportation funds impacts everyone: cities, counties, transit agencies, and metropolitan planning organizations.**

What Can Cities and Counties Do? Be Proactive....

- Notify the refuse haulers in your city or county of the new CARB rule.
- Inform the refuse haulers that they must implement both PM and NOx reductions when available if they intend to negotiate for higher fees to offset the cost of the CARB Refuse Rule.
- If the city or county directly provides refuse hauling services, retrofit vehicles with PM and NOx reduction technologies. Get the maximum reductions possible.

The benefits to air quality and public health are well worth the effort!!

² CARB Board Members DeSaulnier, Patrick, Riordan, Roberts letter to all City and County Officials, April 30, 2004.

³ All compliance costs are estimates using reasonable assumptions and are intended to offer an understanding of the magnitude and scope of compliance costs. Actual compliance costs must be considered on an individual fleet basis and will likely be different.